

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: REENY T. SEBASTIAN ET AL. )  
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SERIAL NUMBER: 09/989,486                 ) Before the Board  
  ) of Patent Appeals and  
  ) Interferences  
FILED: November 20, 2001                    )  
  )  
FOR: REAR STEERING SENSOR                 )  
DIAGNOSTIC ALGORITHM                        )  
FOR FOUR-WHEEL STEERING                    )  
SYSTEMS                                      )

Commissioner for Patents  
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**REPLY BRIEF**

The Examiner's Answer raises new argument and necessitates this Reply Brief.

In order to affirm the Final Rejection, the Board must a) ignore the recitation "rear steering angle"; b) ignore the teaching of Eguchi - the very reference relied upon to support the obviousness rejection; and c) substitute the hindsight reasoning found in the Examiner's Answer for the teaching found in the references of record.

A. The Rejection Ignores the Recitation "Rear Steering Angle"

Each of the appealed claims is an independent claim. The appealed claims, are directed to a method of validating a **rear** steering angle; a storage medium ...comprising computer code for receiving... signals indicative of a **rear** steering angle; a **rear** steering system for a vehicle; or a controller for a **rear**-wheel steering system.

Each of the appealed claims recites “receiving a plurality of signals indicative of said [a] **rear steering angle**”. The rejection relies on the premise that a “front steering angle” can be substituted for a “rear steering angle”, thus giving no weight to the phrase “rear steering angle” found in each of the claims. The Examiner’s Answer states, “the systems operate in the same way,” and “one of ordinary skill would understand the differences and be able to adapt systems interchangeably”.

Despite the argument in the Examiner’s Answer, the term “rear” connotes that there is a “front”. There cannot be a “rear” without a corresponding “front”. The art makes clear that front steering and rear steering are very different. The Examiner’s Answer states that this difference can be ignored by driving a vehicle in reverse. That is not a logical extension of the present invention. Indeed, Applicant’s own specification, entitled “Background” at page 1, paragraph 2 (reproduced below), makes clear that there are different objectives for a rear wheel steering system as opposed to a front wheel steering system - and that there are different means of achieving the objective:

In vehicular applications, a typical four-wheel steering system steers the front and the rear wheels of a vehicle. More specifically, a rear-wheel steering portion of the system may produce a desired rear-wheel steering angle to improve maneuverability at low speeds. The low speed steering method may achieve tight turning radii at low speeds by steering the front and rear wheels in different directions to thereby reduce the effective turning radius of the vehicle. In the rear-wheel steering portion of a four-wheel steering system, an electric motor is typically employed to steer the rear wheels. The position of the rear steering mechanism may be determined with a sensor.

Ignoring the clear meaning of “rear steering angle” and substituting “front steering angle” in the recitation of claims 1, 15 and 17 -19 does not meet the threshold of a *prima facie* case of obviousness.

## B. The Primary Reference, Eguchi, Supports Applicants' Argument

The Examiner's Answer states, "The fact that Eguchi discloses the system for validating a front wheel steering angle in the background for an invention that deals with rear wheel steering is an implicit acknowledgment by Eguchi that front wheel systems can be applied to rear wheel steering angle validating systems".

In fact, the discussion says exactly the opposite. The discussion in Eguchi points out that front wheel steering is a logical place to initially look for a solution to rear steering (just like the Examiner). So Eguchi identifies the front wheel steering system of Showa 63-82875 and discusses it. Ironically, Eguchi concludes that the configuration of the front wheel steering system is NOT helpful, and dismisses the reference (unlike the Examiner). As such, Eguchi supports Applicants' position that front wheel steering is too different from rear wheel steering to be of any help in arriving at Applicants' rear wheel steering system.

## C. The Rejection relies upon Hindsight Reasoning

Eguchi teaches that the front wheel system of Showa is not suitable for the rear wheels. Despite this teaching in the Eguchi reference, the Examiner's Answer suggests that the front wheel system of Showa, "could be used on a rear steering system".

The Examiner is impermissibly substituting his judgment for the teaching in the prior art. The reliance on hindsight reasoning should carry no weight.

For at least these reasons, claims 1, 15, and 17 – 19 patentably distinguish over Eguchi.

## **RELIEF REQUESTED**

In view of the Appeal Brief and this Reply Brief, it is submitted that claims 1, 15, and 17 – 19 patentably distinguish over the prior art cited thereagainst and are allowable.

It is respectfully submitted that the Final Rejection is in error and should be reversed and that the application should be passed to Allowance. Such relief is respectfully requested.

If there are any charges with respect to this Reply Brief or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' attorneys.

Respectfully submitted,  
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